New Features of CadnaR version 2020 MR1

The list of new features offered by **CadnaR** 2020 MR1 is subdivided into the following sections:

- Calculation/Configuration
- **CadnaR**-Objects/Further New Features
- Miscellaneous
- Import/Export
- **CadnaR**-Options

Please note that some of the new features may require the appropriate **CadnaR** option.

Calculation/Configuration

- option "Calculate Echograms ... for Receivers" ("RIR-Evaluation" tab) is now activated by default (provided option T or AUDIO is available)
- "Particle Model" tab: Options "Use CUDA if possible" and "Particle Diffraction" are now activated by default.

CadnaR-Objects/Further New Features

- new Undo/Redo functions for the following objects, actions/commands or situations:

  - Undo/Redo when entering new objects
  - Undo/Redo "Duplicate" (in a single step, not in individual steps)
  - Undo/Redo for context menu commands "Generate label", "Parallel Object", "Convert to"
  - Undo/Redo for object movements using the arrow keys (collected automatically into a single step with a pre-defined timeout)
  - Undo/Redo for PolyMesh grouping/ungrouping
  - Undo/Redo for object tables (in a single step, not as individual steps)
  - Undo/Redo for group table (in a single step, not as individual steps)
  - Undo/Redo for ObjectTree groups:
    - via context menu: for commands "Delete", "Duplicate", "Transformation"
    - via mouse: for actions "Copy" and "Transformation"
    - via keyboard: for actions transformation, deletion
  - Undo/Redo for import to the ObjectTree
  - Undo/Redo for command **Purge ObjectTree** (via menu **Tables|Purge Tables**)
  - Undo/Redo for group movements using the arrow keys (collected automatically into a single step with a pre-defined timeout)

- for Undo/Redo: RAM limitation can be set in CADNAR.INI (e.g. section [Undo], MaxMemUndoBuf=1024, default value 512, value in MB), if exceeded, the oldest undo step is deleted step-by-step
- new symbols for Undo/Redo on the symbol bar (activation/deactivation status complies with menu **Edit|Undo** or **Redo**)

Miscellaneous

- Consistency Check: warning in case the range for level regression at receiver chains deviates from the specifications of guideline VDI 2569
- new spectra for human speech in the global sound power library ("sti_male" according to IEC 60268-16 and "normal speech" according to DIN 3382-3)
- Reverberation Time diagram: recommendations according to VDI 2569: 2019-10 updated (additionally: small multi-person offices)
- **Variant** dialog: now preceded by a minus sign (-) when variants are deactivated
- Object Snap (**Properties** menu): now also works with PolyMesh, vertical PolyMesh, Calculation Area and Auxiliary Polygon (when being entered and as a snap-to target)
- action "Convert to" available also for symbols (from and to Text Box, Level Box and Section)
- default distance for grid and voxel points set to 0.5 m each
- Entering new objects using the mouse: By holding the ALT key depressed while finalizing the object input, the object properties from the default object are used, instead of the properties of the last object in the respective object table (i.e. with "empty" Name, ID, etc.).

Import/Export

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CadnaR-Options

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